

## **REMARKS**

The examiner objects to the drawings as not showing all of the features specified in the claims.

The application includes claims 1-25 prior to entering this amendment.

The examiner rejects claims 1-25 under 35 U.S.C. § 101 as the claimed invention is directed to non-statutory subject matter.

The examiner rejects claims 1-25 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the applicant regards as the invention.

The applicant amends claims 1, 10, 13, and 16.

The application remains with claims 1-25 after this amendment.

The applicant adds no new matter and requests reconsideration.

## **Drawing Objections**

The drawings are objected to as not showing all of the features specified in the claims.

The applicant traverses the rejections.

The applicant respectfully submits that all of the claimed features are shown at least in FIG. 3 of the application. As an example, the examiner indicates that it “is not clear from the drawings (Figs 1-5) the features that represents [sic] the first, second, third, fourth multiplier modules and first, second, third, and fourth multiplicand generators...”<sup>1</sup> The present application discloses that “the LUTs and other modules which provide multiplicands to the complex multiplier modules can be termed as multiplicand generators.”<sup>2</sup> This statement together with the description of FIG. 3<sup>3</sup> leads to the conclusion that FIG. 3 illustrates first, second, and third multiplier modules 320, 330, and 340 and first, second, third, and fourth multiplicand generators 316, 326, 336, and 346 (the claims do not actually recite a fourth multiplier module). And FIG. 3 illustrates the various interconnections of the system components. The applicant submits that the drawings as filed show all of the claimed features. Consequently, the applicant requests that the examiner withdraw his drawing objections.

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<sup>1</sup> Office action dated 5/3/2007, page 2.

<sup>2</sup> Present application, paragraph [0110].

## **Claim Rejections Under § 101**

The examiner rejects claims 1-25 as directed to non-statutory subject matter.

The applicant traverses the rejections.

The examiner refers to the *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*, pages 58-59, as providing the basis for concluding that claims 1, 10, and 16 are directed to non-statutory subject matter. But claims 1, 10, and 16 are system claims that recite tangible elements, such as multiplier modules and multiplicand generators. The pages of the Interim Guidelines that lend support to the examiner's rejections are directed to “[c]laims to processes that do nothing more than solve mathematical problems or manipulate abstract ideas or concepts.”<sup>4</sup> Claims 1, 10, and 16 are not process claims and as such are not non-statutory subject matter under this section of the Interim Guidelines.

Further, the Interim Guidelines indicate that “a complete definition of the scope of 35 U.S.C. § 101, reflecting Congressional intent, is that any new and useful process, machine, manufacture or composition of matter under the sun that is made by man is the proper subject matter of a patent.”<sup>5</sup> The applicant submits that the systems recited in claims 1, 10, and 16 fall into the category of new and useful machines and are therefore patentable under 35 U.S.C. § 101. The examiner suggests that the claims are not patentable because of the functional features recited therein. But the Interim Guidelines make clear that “an apparatus claim with process steps is not classified as a ‘hybrid’ claim; instead, it is simply an apparatus claim including functional limitations.”<sup>6</sup> The applicant therefore concludes that the functional features recited in the apparatus claims 1, 10, and 16 do not make the claims non-statutory.

Finally, the application discloses at least one, non-limiting, use for performing FFT/IFFT operations in wireless network technologies.<sup>7</sup> The system for performing FFT/IFFT operations has a tangible, concrete, useful, and potentially patentable application and is not just an unpatentable mathematical algorithm.

The applicant submits that claims 1, 10, and 16 recite statutory subject matter. The applicant respectfully requests that the examiner withdraw his § 101 rejections of claims 1-25.

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<sup>3</sup> Present application, paragraphs [0074]-[0106].

<sup>4</sup> *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*, page 58.

<sup>5</sup> *Id* at page 13.

<sup>6</sup> *Id* at page 15.

### **Claim Rejections § 112**

The examiner rejects claims 1-25 under § 112, second paragraph.

The applicant traverses the rejections.

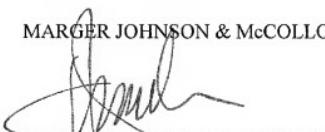
The examiner alleges that system claims 1, 10, and 16 do not produce any valid outputs and therefore do not recite any structure. The applicant respectfully disagrees with the examiner. In the interest of advancing prosecution, however, the applicant amends claims 1, 10, and 16 to recite accumulation modules to generate outputs that are an FFT or IFFT of the inputs to the system. The applicant submits that the claims are not "vague and indefinite" as the examiner alleges, particularly as the applicant amends the claims. The applicant respectfully requests the examiner withdraw the § 112 rejections.

### **Conclusion**

The applicant requests reconsideration and allowance of the remaining claims. The applicant encourages the examiner to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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<sup>7</sup> Present application, paragraphs [0002-0010].